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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,287	06/21/2003	Daniel Luch		6293

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Daniel Luch
17161 Copper Hill Drive
Morgan Hill, CA 95037

EXAMINER	
LAM, CATHY FONG FONG	
ART UNIT	**PAPER NUMBER**
1775	
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05/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/600,287	LUCH, DANIEL	
	Examiner	Art Unit	
	Cathy Lam	1775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Jan 04, & Feb 02, 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 June 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

In view of the amendment and remarks filed on January 04, 2007, the pending claims continue to be unpatentable as following:

Claim Rejections - 35 USC § 112

1. Claims 22 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 22 is structurally indefinite, as it is unclear how "an insulating stopoff material" has become a second of said multiple surface regions? Clarification is required.

Claim 25 is vague and indefinite; applicant has not clearly set forth any structure for such functional attribute.

Claim Rejections - 35 USC § 102

2. Claims 1, 7-8, 11 and 22-23 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Hans (US 4224118).

Hans teaches an electroplated article comprised of a metal coating(s) and a plastic substrate (col 1 L 15-16). The metal coating(s) is selectively plated over the plastic substrate (col 1 L 8-9).

The plastic substrate is an injection molded thermoplastic, acrylonitrile butadiene styrene, which is a well known rubber/elastomeric material (col 2 L 4-5 & Applicant's own disclosure page 21 line 1).

A resinous stopoff coating layer is formed onto part of the plastic substrate surface before metal coating (col 2 L 8-13). The examiner is taking the position that Han's electrolytically coated plastic substrate is a planar web.

Claim Rejections - 35 USC § 102/103

3. Claims 1-14 and 23-24 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kawai et al (US 4425262).

Kawai teaches an electroplated article comprised of an electroconductive resin composition and a metal coating. The electrocnductive resin composition is comprised of an ethylene/propylene copolymer rubber matieral, carbon black, sulfur and trithiolcyanuric acid (or adhesion promoter) (col 2 L 12-58). The resin composition is molded into a shaped article (col 2 L 5). The metal coating is directly electroplated onto the shaped resin article (col 1 L 5-13 & col 2 L 2-7). The examiner takes the meaning of "directly electroplated" as there is no surface treatment of pre-treatment step(s) exists.

The electroconductive resin composition has an electrical resistance of < 300 Ω-cm, the electrical resistance is measured at 1 cm interval (col 3 L 22-29 & L 49-51).

Kawai does not stated any specific structure of his article, the examiner is taking the position that Kawai's electroplated article is a planar web structure.

Kawai is silent about the metal coating is selectively plated. The examiner is taking the position that whether metal coating is patterned or not, is part of the design scheme, and only one way or the other exists (i.e. either selectively patterned or not selectively patterned). Such design scheme is conventional.

4. Claims 1-8 and 11-12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Adelman (US 4038042).

Adelman teaches a plastic composition which can be directly electroplated with a metal.

The plastic composition is an acrylonitile-butadiene-styrene resin and is molded into a shaped article (col 2 L 5-8 & col 4 L 35-38). The resin further comprised of carbon black (col 4 L 45-46). The article has a volume resistivity of less than 25 Ω-cm (col 4 L 66-68).

The article is directly electroplated with a metal coating (col 7 L 20-28). The examiner takes "directly electroplated" with the meaning of no surface pre-treatment.

Adelman is silent about the metal coating is selectively coated (or patterned) over the plastic article. However, the examiner is taking the position that whether the metal coating is selectively coated or not, is one of the conventional design schemes. The examiner also takes the position that Adelman's article is a planar web structure.

Claim Rejections - 35 USC § 103

5. Claims 9-22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawai et al (US 4425262) or Adelman (US 4038042) in view of Hans (US 4224118).

Kawai and Adelman both teach an electroconductive resin composition material which is molded into an article. The resin article is directly electroplated with a metal material without any surface pre-treatment.

Kawai and Adelman however are silent about the metal coatings are selectively plated (or patterned).

Hans teaches an article comprised of a molded plastic substrate and a metal coating. The metal coating is selectively electroplated onto the surface of the plastic substrate (col 1 L 8-9 & L 15-21).

In view of the prior art teachings, one skill in the art would fabricate a selectively electroplated article because it is well known to pattern a layer by using a mask or a resist as taught by Hans (col 1 L 53-57).

Regarding claims 15-17, conventional electronic devices and electronic circuit boards all comprised of an electroconductive layer plated over a non-electroconductive or a dielectric layer. It is obvious that applicant's selective electroplated structure is used as an electronic device.

Regarding to claims 18-21and 25, these claims are intended use, the examiner is taking the position that since the above cited prior art meet the claimed limitations, it would be obvious that the prior art products can be used to perform the same job.

Response to Arguments

6. Applicant's arguments filed on 01-04-2007 have been fully considered but they are not persuasive. Applicant traverses the art rejections and raises the following issues (examiner has summarized applicant's arguments as following):

A. Hans and Bogard teach a conventional electroless preplating to render the plastic surface conductive for subsequent electrodeposition.

B. Adelman does not teach directly electroplateable resins". Adelman's electrodeposit coverage rates were slow and undesirable.

C. There is no evidence that Kawai's "directly electroplateable resin" achieved any commercial success.....; the thickness of the electroplated metal layer is too thick...

In respond to the above issues:

A. Hans never teaches any electroless plating. In fact, Hans' preplating step is electrolytically deposited (col 2 L 5-8 & col 4 L 55-62).

Bogard was used only to show a mask or a resist are well known method to be utilized in electroless or electroplating processes.

B &C. Both Adelman and Kawai clearly teach an article of a metal electroplated directly onto a directly electroplateable resin layer. The prior art's coverage rate and the thickness of the metal layer are irrelevant to the claims, because applicant did not claim any metal thickness. Therefore, the examiner is taking the position that Adelman and Kawai continue to meet the present invention.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cathy Lam whose telephone number is (571) 272-1538. The examiner can normally be reached on 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on (571) 272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Cathy Lam

Cathy Lam
Primary Examiner
Art Unit 1775

cfl
April 26, 2007